Department of Energy
Ohio Field Office
Fernald Environmental Management Project
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(513) 648-3155

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OCT 2 4 2002

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0046-03

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

SECOND QUARTER 2002 RE-INJECTION OPERATING REPORT

The purpose of this letter is to transmit the subject report for your review and approval. This report is being submitted to you in accordance with the Re-Injection Demonstration Test Plan.

This report is the first Re-Injection Operating Report covering a quarter rather than a month. The quarterly format is being provided based on discussion with the Ohio Environmental Protection Agency (OEPA) on March 19, 2002 (during the site weekly teleconference). The change to the quarterly reporting format was also noted in the transmittal letters for the February and March 2002 Monthly Re-Injection Operating Reports. Future reports will continue to be submitted in the quarterly format.

If you have questions or concern, please contact Robert Janke at (513) 648-3124.

Sincerely,

Johnny Reising

FEMP:R. J. Janke

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosure: As Stated

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cc w/enclosure:
R. J. Janke, OH/FEMP
A. Murphy, OH/FEMP
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G. Jablonowski, USEPA-V, SRF-5J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
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R. Greenberg, EM-31/CLOV
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M. Frank, Fluor Fernald, Inc./MS90
T. Hagen, Fluor Fernald, Inc./MS9
W. Hertel, Fluor Fernald, Inc./MS52-5
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ECDC, Fluor Fernald, Inc./MS52-7

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SECOND QUARTER 2002 RE-INJECTION OPERATING REPORT

Re-injection at Fernald is exempted under 40 CFR 300.400(e)(1) from requiring a permit, as it is a CERCLA action. Ohio EPA Guidelines (OEPA 1997), suggest monthly operating reports be submitted that include:

I. An analysis of the injectate

- Composite daily total uranium results from the injectate source (AWWT Expansion Facility effluent) for days when re-injection occurred are shown in Figure 1.
- The monthly grab sample results for second quarter 2002 are provided in Table 1.

II. The volume and rate of re-injection

- Table 2 summarizes second quarter 2002 operational data.

III. A description of any well maintenance and rehabilitation procedures conducted.

- No well maintenance or rehabilitation occurred in April, May, or June 2002.

DOE has submitted the monthly reports since re-injection began in September 1998. Due to the routine nature of the reports, DOE and Ohio EPA agreed in March 2002 that the monthly information would be provided in quarterly reports beginning with this report.

Routine monitoring of the aquifer in the re-injection area is conducted as part of the groundwater remedy performance monitoring program specified in Fernald's Integrated Environmental Monitoring Plan (IEMP). Results of the IEMP are reported semi-annually and are available for viewing on the Fernald website, www.fernald.gov. Location of the re-injection wells is shown in Figure 2.

ANALYSIS OF THE INJECTATE

No constituents exceeded their FRLs. The following total uranium concentrations were measured in the monthly grab and daily composite samples, respectively:

- April 2, 2002: 8.58 micrograms per liter (µg/L) and 8.4 µg/L
- May 14, 2002: 4.86 µg/L and 5.4 µg/L
- June 2002: No grab sample collected. The re-injection system was not operating during the time the grab sample was scheduled to be collected. See Figure 1 for daily composite uranium concentrations in the injectate.

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TABLE 1

ANALYSIS OF INJECTATE

Constituents[a]	Results[b] April 2, 2002	Results[b] May 14, 2002	Results[b] June 2002[c]	Groundwater FRL[d]	Constituent Type[f]	Basis for FRL[g]
General Chemistry				**mg/L**		
Nitrate	0.54	0.99 -	NA	11.0	MP	B
Inorganics				**mg/L**		
Antimony	0.0019 U	0.0022 U	NA	0.006	N	A
Arsenic	0.0030 U	0.0025 U	NA	0.05	N	A
Barium	0.0491 B	0.0484 J	NA	2.0	N	A
Beryllium	0.00010 U	0.0001 U	NA	0.004	N	A
Cadmium	0.00030 U	0.0003 U	NA	0.014	N	B
Chromium, total	0.00080 U	0.00091 J	NA	0.022[e]	MP	R
Cobalt	0.00060 U	0.00075 J	NA	0.17	N	R
Lead	0.0022 U	0.0017 U	NA	0.015	N	A
Manganese	0.00030 U	0.0021 U	NA	0.9	N	B
Mercury	0.00010 U	0.0001 U	NA	0.002	MP	A
Nickel	0.0012 U	0.0076 J	NA	0.1	N	A
Selenium	0.0036 U	0.0035 U	NA	0.05	N	A
Silver	0.00070 U	0.0005 U	NA	0.05	N	R
Vanadium	0.00070 U	0.0007 U	NA	0.038	N	R
Zinc	0.0011 B	0.0112 J	NA	0.021	N	B
Radionuclides				**pCi/L**		
Neptunium-237	0.0167 U	-0.0175 U	NA	1.0	MP	R*
Radium-226	0.432 U	1.61	NA	20.0	N	A
Strontium-90	0.841	0.0947 U	NA	8.0	MP	A
Thorium-228	0.00358 U	0.00211 U	NA	4.0	N	R*
Thorium-232	0.0106	0 U	NA	1.2	N	R*
				µg/L		
Uranium, total	8.58	4.86	NA	30.0	MP	A
Organics			NA	**µg/L**		
Bis(2-ethylhexyl)phthalate	0.6 JB	5 U	NA	6.0	N	A
Carbon disulfide	1.0 U	1.0 U	NA	5.5	N	A
1, 1-Dichloroethene	1.0 U	1.0 U	NA	7.0	N	A
1, 2-Dichloroethane	1.0 U	1.0 U	NA	5.0	MP	A
Trichloroethene	1.0 U	1.0 U	NA	5.0	N	A

Results Qualifiers: - = Result is confident as reported, U = Nondetected result, B = Reported result is greater than the instrument detection level but less than the contract required detection limit, J = Reported result is positively detected but is estimated; the result is still usable for making decisions.

[a]Constituents taken from Table 2-1 of the Re-Injection Demonstration Test Plan, and are those previously detected in Aquifer Zones 2 and 4 at concentrations above their FRL.

[b]If a duplicate sample was analyzed, then the highest concentration between the regular sample and duplicate sample is reported.

[c]Results are not available (NA) No June grab sample was collected. The re-injection system was not operating during the time the grab sample was scheduled to be collected.

[d]From Table 9-4 in the Operable Unit 5 Record of Decision Report.

[e]FRL is for hexavalent chromium.

[f]Constituent types from Appendix A of IEMP. MP indicates that the constituent has been identified as being able to migrate to the aquifer. N indicates that the constituent has been identified as not being able to migrate to the aquifer.

[g]A - Applicable or relevant and appropriate requirement based (MCL, PMCL, etc.), B - Based on 95th percentile background concentrations, R - Risk-based, R* - Risk-based radionuclide cleanup levels include constituent specific 95th percentile background concentration.

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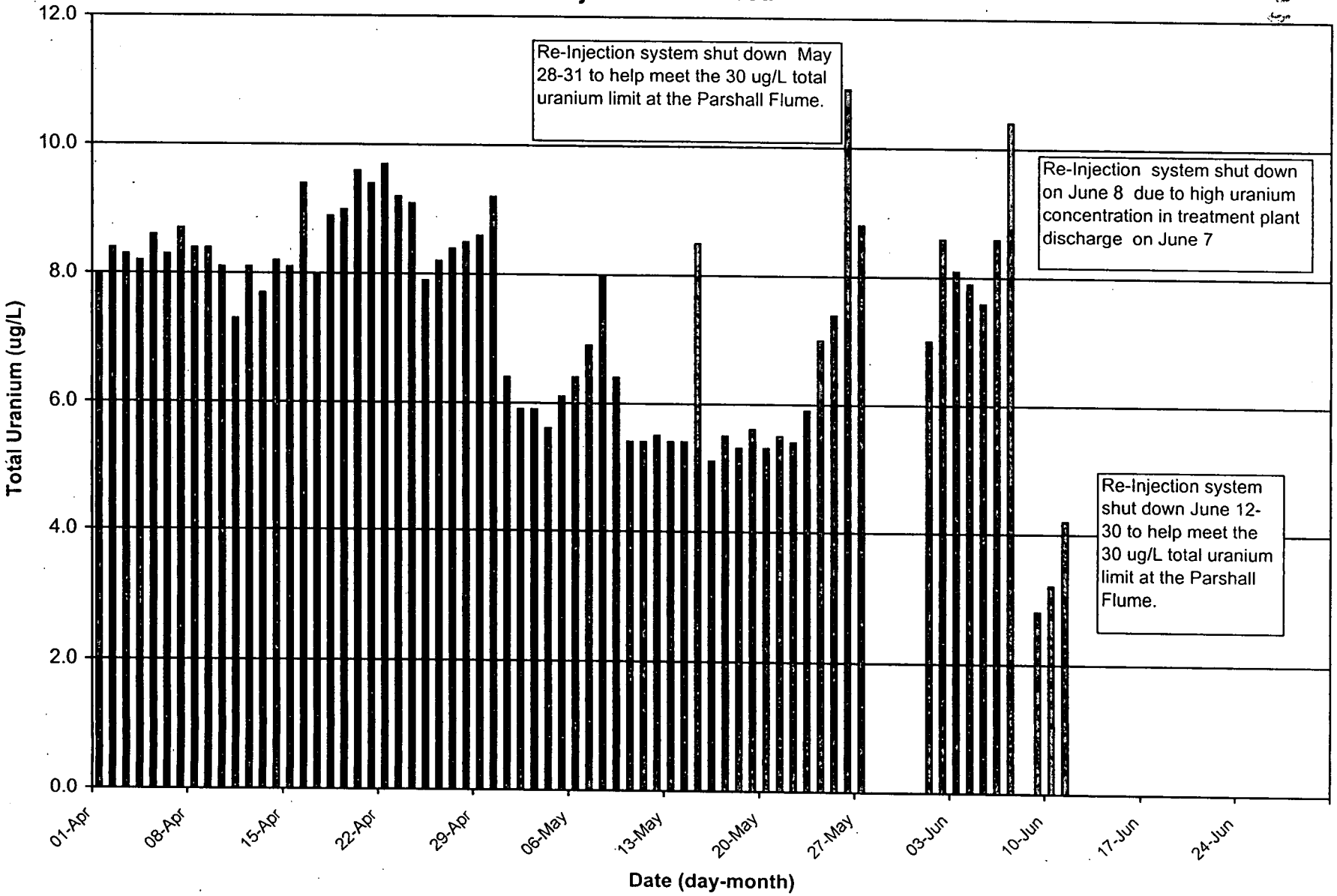
TABLE 2
RE-INJECTION WELL OPERATIONAL SUMMARY SHEET
SECOND QUARTER 2002

Well Number	Reporting Period (hours)[a]	Hours Not Injecting[b]	Hours Injecting[c]	Operational Percent[d]	Million Gallons Injected[e]	Target /Average[f] Operating Injection Rate (gpm)
22107 (IW-8)	2184.00	2184.00	0.00	0.00	0.00	200 / 0
22108 (IW-9)	2184.00	2184.00	0.00	0.00	0.00	200 / 0
22109 (IW-10)	2184.00	557.00	1627.00	74.50	18.79	200 / 192
22240 (IW-11)	2184.00	557.00	1627.00	74.50	18.94	200 / 194
22111 (IW-12)	2184.00	557.00	1627.00	74.50	19.05	200 / 195

[a]First operational shift reading on April 1, 2002 to first operational shift reading on July 1, 2002.
[b]System downtime as noted on Figure 1.
[c]Hours in reporting period - Hours not injecting
[d](Hours injecting/Hours in reporting period) x 100
[e]Summation of daily totalizer differences
[f]Gallons Injected/(Hours Injecting x 60)

Figure 1
Composite Daily Total Uranium Results from the AWWT Expansion Facility for Days when Re-Injection Occurred



apr-jun02 awwt expansion effluent.xls Chart1 10/18/2002 2:35 PM

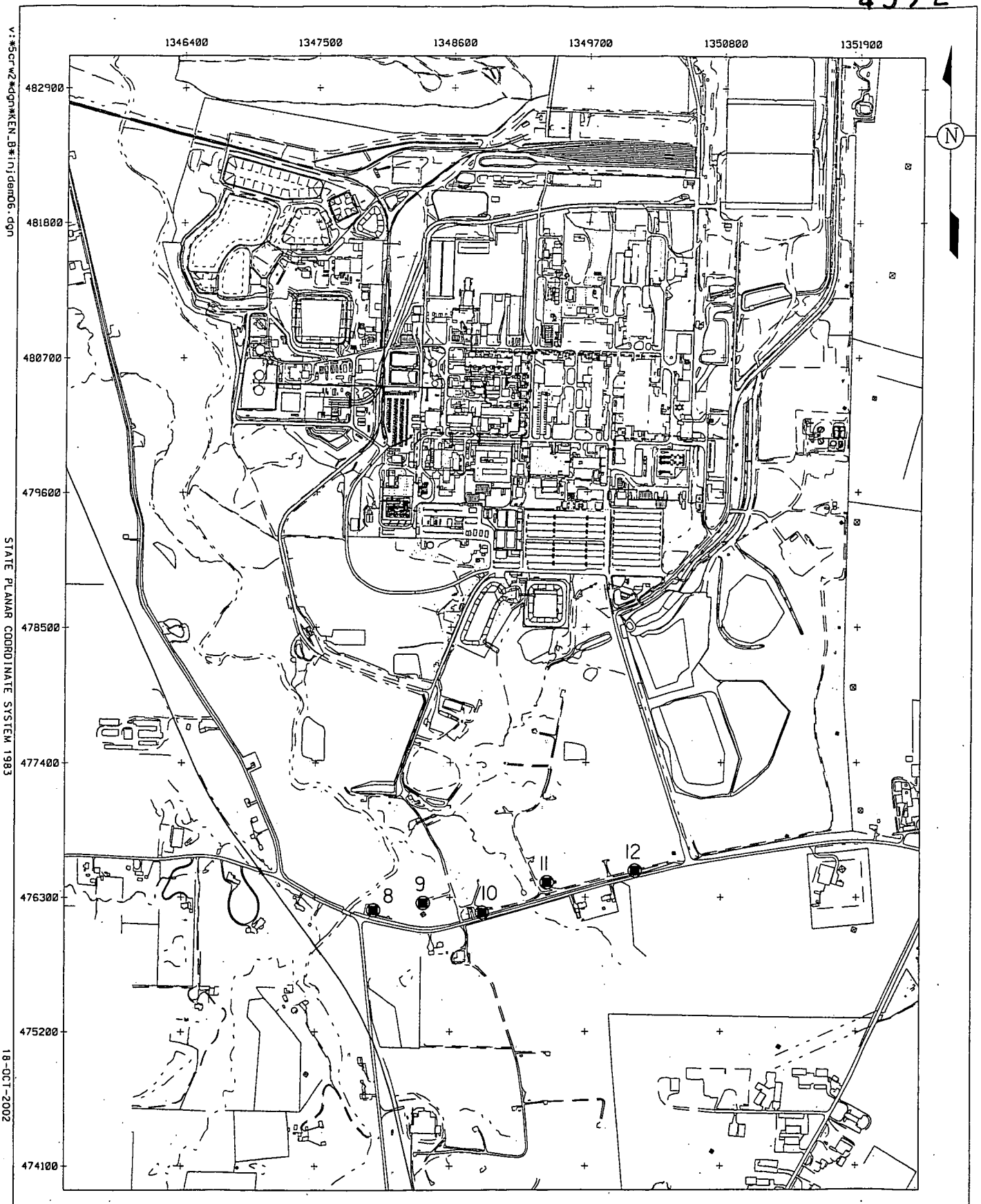


FIGURE 2. LOCATION OF RE-INJECTION WELLS